

In re Application of Wang et al.
Serial No. 09/895,429

Listing of the Claims:

1. (original) A computer readable medium having computer-executable instructions, comprising,

accessing a plurality of stroke samples, the stroke samples representing more than one class;

extracting curvature features of each of the strokes for each class; and

using the curvature features, training a trainable classifier to classify strokes for each class.
2. (original) The computer readable medium of claim 1, wherein the trainable classifier comprises a support vector machine.
3. (original) The computer readable medium of claim 1, wherein the curvature features of a stroke comprise a tangent histogram of the stroke.
4. (original) The computer readable medium of claim 3, wherein the curvature features of a stroke comprise the discrete curvature of the stroke.
5. (original) The computer readable medium of claim 1, wherein the curvature features of a stroke comprise the discrete curvature of the stroke.

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6. (original) A computer readable medium having computer-executable instructions, comprising,

accessing a digital ink file having at least one stroke therein;

extracting curvature features of the at least one stroke; and

based upon the curvature features, determining whether the stroke is text.
7. (original) The computer readable medium of claim 6, wherein determining whether the stroke is text comprises evaluating the stroke with a trainable classifier.
8. (original) The computer readable medium of claim 6, wherein the trainable classifier comprises a support vector machine.
9. (original) The computer readable medium of claim 8, wherein the curvature features comprise the discrete curvature of the stroke.
10. (original) The computer readable medium of claim 9, wherein the curvature features comprise the tangent histogram of the stroke.
11. (original) The computer readable medium of claim 8, wherein the curvature features comprise the tangent histogram of the stroke.

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12. (original) The computer readable medium of claim 6, wherein the curvature features comprise the discrete curvature of the stroke.

13. (original) The computer readable medium of claim 12, wherein the curvature features comprise the tangent histogram of the stroke.

14. (original) The computer readable medium of claim 6, wherein the curvature features comprise the tangent histogram of the stroke.

15. (original) A computer readable medium having stored thereon a data structure, comprising:

a first data field comprising data representing information regarding a plurality of classes of digital ink strokes; and

a second data field comprising trained information regarding curvature features of each of the digital ink strokes.

16. (original) The computer readable medium of claim 15, wherein the trained information is derived from a trainable classifier.

17. (original) The computer readable medium of claim 16, wherein the trainable classifier comprises a support vector machine.

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18. (original) The computer readable medium of claim 15, wherein the curvature features comprise the discrete curvature of the stroke.
19. (original) The computer readable medium of claim 18, wherein the curvature features comprise the tangent histogram of the stroke.
20. (original) The computer readable medium of claim 15, wherein the curvature features comprise the tangent histogram of the stroke.
21. (currently amended) A computer readable medium having computer-executable instructions, comprising,
accessing a digital ink file having a plurality of strokes therein;
determining a class for each of the plurality of strokes; and
grouping some of the strokes based upon local characteristics of the strokes to ~~formed~~ form grouped strokes.
22. (original) The computer readable medium of claim 21, wherein grouping some of the strokes based upon local characteristics of the grouped strokes comprises grouping some of the strokes based upon spatial information regarding the strokes.

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23. (original) The computer readable medium of claim 22, wherein the spatial information comprises a distance threshold between strokes in the grouped strokes.

24. (original) The computer readable medium of claim 22, wherein grouping some of the strokes based upon local characteristics of the grouped strokes comprises basing the grouping upon a relative height threshold of the strokes.

25. (original) The computer readable medium of claim 24, wherein grouping some of the strokes based upon local characteristics of the grouped strokes comprises grouping some of the strokes based upon a relative aspect ratio of the strokes.

26. (original) The computer readable medium of claim 21, wherein grouping some of the strokes based upon local characteristics of the grouped strokes comprises basing the grouping upon a relative height threshold of the strokes.

27. (original) The computer readable medium of claim 26, wherein grouping some of the strokes based upon local characteristics of the grouped strokes comprises grouping some of the strokes based upon a relative aspect ratio of the strokes.

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28. (original) The computer readable medium of claim 21, wherein grouping some of the strokes based upon local characteristics of the grouped strokes comprises grouping some of the strokes based upon a relative aspect ratio of the strokes.

29. (original) The computer readable medium of claim 21, having further computer-executable instructions comprising grouping some of the strokes based upon characteristics of the plurality of the strokes.

30. (original) The computer readable medium of claim 29, wherein grouping some of the strokes based upon characteristics of the plurality of strokes comprises grouping some of the strokes based upon a normalized height of at least some of the plurality of strokes.

31. (original) The computer readable medium of claim 29, having further computer-executable instructions comprising classifying some of the plurality of strokes as text strokes, and wherein grouping some of the strokes based upon characteristics of the plurality of strokes comprises grouping some of the strokes based upon a normalized height of the text strokes.

32. (original) The computer readable medium of claim 29, wherein grouping some of the strokes based upon characteristics of the plurality of strokes

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comprises grouping some of the strokes based upon a threshold distance between the strokes.

33. (original) The computer readable medium of claim 21, having further computer-executable instructions comprising classifying some of the plurality of strokes as text strokes, and designating at least one of the stroke groups as a text stroke group based upon at least some of strokes in the stroke group being text.

34. (currently amended) A computer readable medium having computer-executable instructions, comprising,

accessing a digital ink file having a plurality of strokes therein;

determining a class for each of the plurality of strokes; and

grouping some of the strokes based upon characteristics of the plurality of strokes.

35. (original) The computer readable medium of claim 34, wherein grouping some of the strokes based upon characteristics of the plurality of strokes comprises grouping some of the strokes based upon a normalized height of at least some of the plurality of strokes.

36. (original) The computer readable medium of claim 34, having further computer-executable instructions comprising classifying some of the plurality of strokes as text strokes, and wherein grouping some of the strokes based upon

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characteristics of the plurality of strokes comprises grouping some of the strokes based upon a normalized height of the text strokes.

37. (original) The computer readable medium of claim 34, wherein grouping some of the strokes based upon characteristics of the plurality of strokes comprises grouping some of the strokes based upon a threshold distance between the strokes.

38. (original) The computer readable medium of claim 34, having further computer-executable instructions comprising classifying some of the plurality of strokes as text strokes, and designating at least one of the stroke groups as a text stroke group based upon at least some of strokes in the stroke group being text.